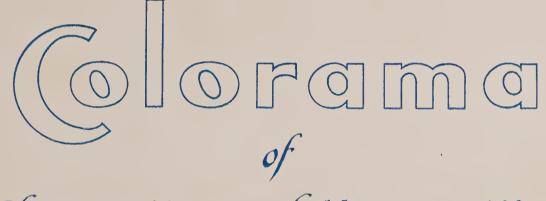




CHICAGO RATURAL HISTORY MUSEUM





The Chicago Natural History Museum



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To the Reader:

The Chicago Natural History Museum has long been known for the excellence of its exhibits and the completeness of its study collections. Few people realize, however, the beauty of the specimens displayed when considered from a standpoint of color. In presenting this volume of color plates representing various exhibits at the Museum, color value has been the basis of our selections.

It is desired to express here the full appreciation of the Board of Trustees to Mr. Clarence Mitchell, formerly Associate in Photography, who has unselfishly spent his time and his money in producing the photographs from which these plates were made. The plates themselves are also gifts of Mr. Mitchell.

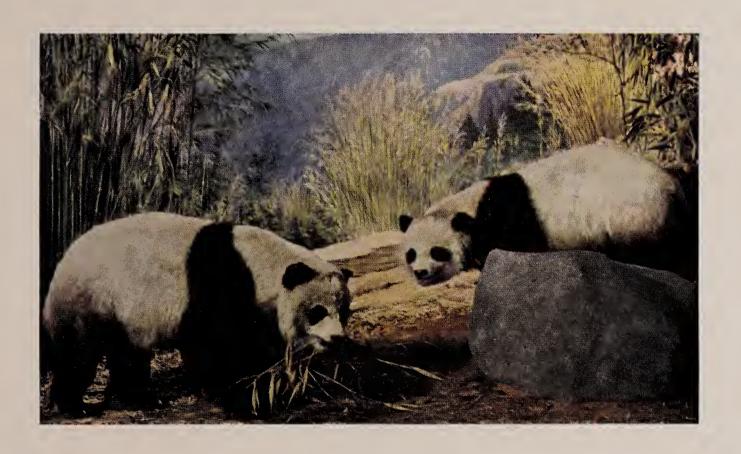
CLIFFORD C. GREGG, Director

Giant Panda

THE Giant Panda is one of the rarest of carnivorous mammals. It lives in high mountains of western China and Tibet where white men seldom travel. Here it frequents bamboo thickets and feeds upon leaves, twigs, and even the hard, flinty stalks of bamboo. For crushing and masticating such food it has developed heavy grinding teeth.

The specimen shown on the left in the group, a full-grown male, was shot by Theodore and Kermit Roosevelt, and is the first example of the species known to have been killed by white men. The specimen on the right was obtained from natives.

WILLIAM V. KELLEY HALL (HALL 17)



Ancient Pottery Bowl

THIS unique piece of Black-on-Orange pottery was found in 1939 in south-western Colorado. The bowl was discovered in a pit-house, so-called because the floor is three feet below the ground level.

This class of pottery was made in the latter part of the Basket Maker culture period (A.D. 700-900), the earliest yet recognized for the northern part of the Southwest.

The Basket Maker Indians lived in villages made up of clusters of underground and surface houses. They grew corn and squash for food.

HALL 7: ARCHAEOLOGY OF SOUTHWESTERN UNITED STATES



Swamp Forest

A RESTORATION of an Illinois forest of 250,000,000 years ago, in the geological period called the Pennsylvanian. In these swampy forests clubmosses and ferns grew as large as trees, and great horsetail rushes lined the streams and filled the bogs. The litter from this vegetation provided the material from which most of the coal deposits in the world have been formed.

Some of the huge primitive insects of that time can be seen in the group. A dragonfly is hovering in the trees to the right and a large cockroach is crawling over a log in the foreground.

ERNEST R. GRAHAM HALL (HALL 38)

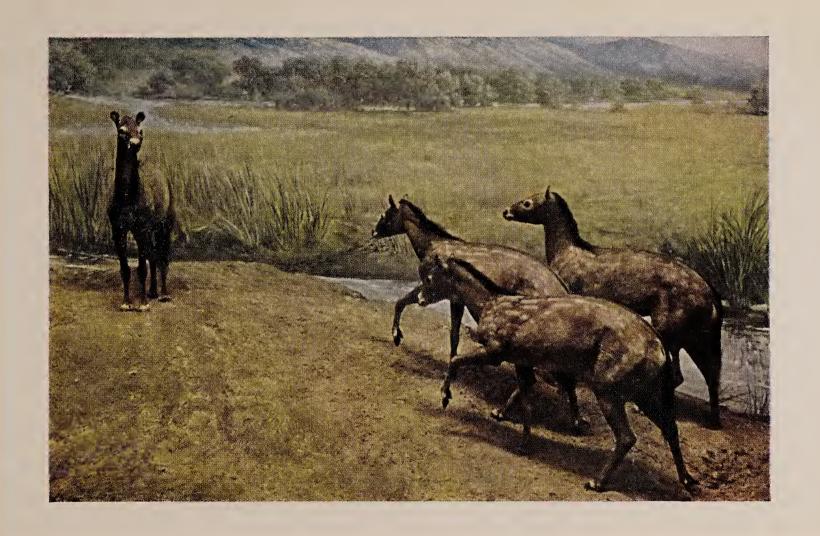


Three-toed Horses

THESE animals, early ancestors of our modern horse, lived about 30,000,000 years ago. They were browsing animals. As their descendants grew larger, the middle toe became strong and the side toes were lost.

The restoration of the group is based upon fossil skeletons of the animals that were found in the Bad Lands of various western states. The figures are made by modeling the form of the animal in clay, casting it in plaster, and then fitting a prepared skin over the plaster form, just as a taxidermist mounts a modern animal.

ERNEST R. GRAHAM HALL (HALL 38)

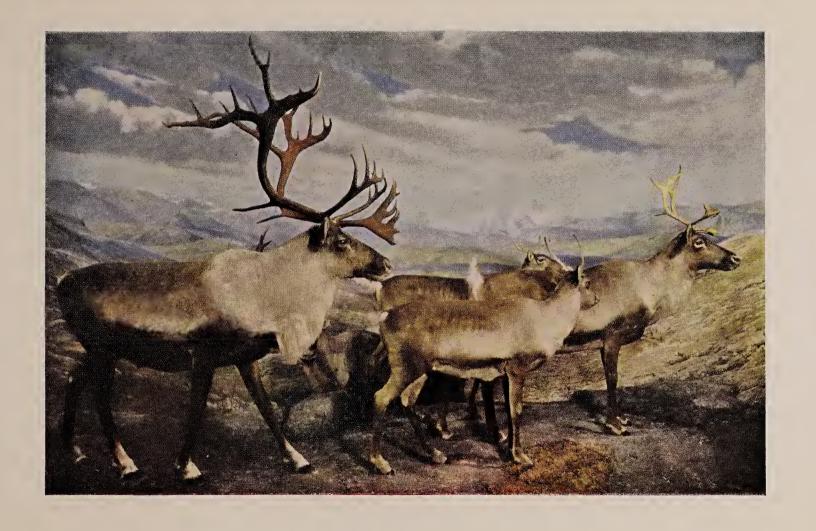


Alaskan Caribou

THE American caribou include several different varieties from Alaska to Newfoundland. They are closely related to wild species of the Old World from which the domestic reindeer was derived. Caribou belong to the deer family, but since they inhabit soft, swampy ground they have developed broad hoofs and large "dew claws." Both males and females have horns.

In the interior of Alaska, caribou spend the summer in scattered groups above timberline in the mountains. In fall and winter they pass from one feeding ground to another in large herds, sometimes numbering many thousands.

RICHARD T. CRANE, JR., HALL (HALL 16)



Muskox

THE Muskox combines some of the characters of the sheep and the oxen. It lives only in arctic regions from the northwest side of Hudson Bay to Greenland. In northern Europe, Asia, and Alaska, where it once existed, it is now extinct.

When attacked by wolves, their only natural enemies, Muskoxen form a circle with heads out and defend themselves with their heavy sharp-pointed horns. They subsist on dwarf plants, and to obtain these they must paw away the snow during the long arctic night.

RICHARD T. CRANE, JR., HALL (HALL 16)



Alpine Meadow

THIS scene represents an alpine meadow at an elevation of 12,000 feet, in Medicine Bow Range, near Laramie, Wyoming, where the timberline is found at that altitude.

At high elevations, the low temperatures, intense sunlight and rarefied atmospheric conditions produce an environment resembling that prevailing at lower levels in the frigid zone. A special alpine vegetation results, consisting mostly of low herbs with bright-colored flowers. Dwarf spruce and juniper of the timberline represent the woody vegetation below.

MARTIN A. AND CARRIE RYERSON HALL (HALL 29)



Thunder Eggs

THESE agate-filled nodules from Oregon were named "thunder eggs" by the Indians. They believed that when the spirits who inhabited the peaks of Mount Hood and Mount Jefferson became angry they hurled these nodules at one another, with an accompaniment of thunder. The "eggs" found scattered around were the ones that had missed their targets.

The nodules really come from lava. Large bubbles of steam are entangled in the lava, and as it cools, the escaping water leaves holes that become filled with agate.

CLARENCE BUCKINGHAM HALL (HALL 35)



Early European Artist

DURING the Aurignacian period, some 35,000 years ago, these hunter-artists of western Europe decorated the innermost recesses of their caves with paintings and engravings.

In this restoration the artist is blowing powdered red ocher around the outstretched fingers of his left hand, thereby making an outline on the wall. Many of the hands drawn by these people have been mutilated, probably as a sacrificial rite. This custom of cutting off fingers was practiced until recently by some primitive peoples in Australia and North America.

HALL C: STONE AGE OF THE OLD WORLD



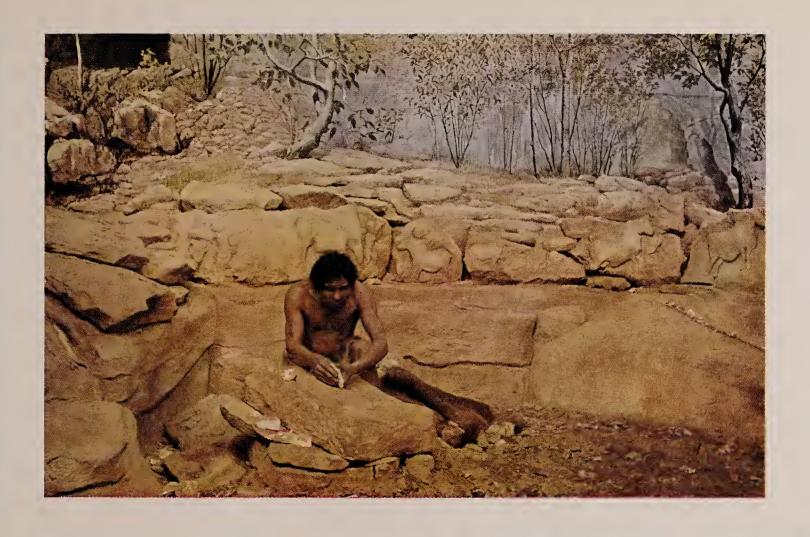
Prehistoric Sculptor

THIS sculptor is one of a race of hunter-artists called Solutreans, who invaded Europe from Asia some 22,000 years ago. In appearance they resembled the modern Eskimo, to whom they may be related. Their flint-flaking technique was the most advanced of the entire prehistoric period.

In the Solutrean period the climate was cold and the horse and reindeer were the chief sources of food supply.

This scene shows a reproduction of a frieze of animals found at Le Roc, in France. The sculptor is carving a horse on a limestone block.

HALL C: STONE AGE OF THE OLD WORLD



Beaver

THE Beaver is the largest and most interesting of North American rodents or gnawing mammals. Owing to much trapping for its fur, the Beaver has been reduced in numbers, but if protected by law it multiplies rapidly and soon restocks a region.

Quiet streams and ponds in wooded regions are its favorite haunts. Here it builds a dam of logs, branches, and mud. In the deep pond formed by the dam the Beaver builds its house and stores green saplings and branches for its winter food, although it eats only the bark and twigs. The house has an entrance under water and a passage leading to a cozy chamber.

RICHARD T. CRANE, JR., HALL (HALL 16)



California Quail

THIS attractive species is the official state bird of California. It is highly regarded by sportsmen and is a favorite for transplantation. It has been successfully introduced in several western states beyond its normal range, and also in the Hawaiian Islands, New Zealand, and Chile.

In some localities California Quail regularly enter towns, where they feed on the lawns and roost in the trees and shrubbery. Normally this species inhabits brush-covered hillsides and grassy plains, but it may be found wherever suitable cover occurs. The California Quail is of great value to the farmer, for its diet includes weed seeds as well as noxious insects.

HALL 21: SYSTEMATIC GROUPS OF BIRDS



Malay Apple

A REPRODUCTION of flowering and fruiting branches of the Jambo, or Malay Apple, an East Indian tree of the Myrtle family. The flowers do not appear on the new growth which bears the leaves but form in small clusters from buds on the surface of the older branches, so that they appear to grow directly from the bark. At flowering time the trees are practically leafless, but produce, and drop, crimson blossoms in such profusion that the ground under the trees becomes carpeted with red.

The pear-shaped fruits are white to deep red in color. The skin of the fruit is thin. The flesh is snowy white and spongy, with a slight perfume of rose, and is edible but insipid.

MARTIN A. AND CARRIE RYERSON HALL (HALL 29)

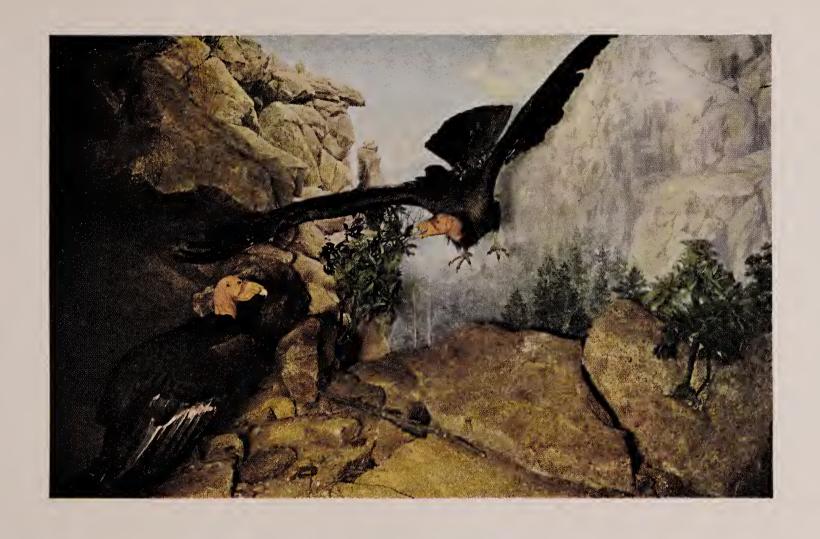


California Condor

ONE of the rarest of American birds is the California Condor. Although probably never a common bird, it formerly occurred from Washington to Lower California. Now it is found only in remote and rugged portions of southern California.

The Condor builds no nest but lays its single egg on the bare floor of a practically inaccessible cave or crevice on the side of a canyon. Condors do not nest every year and consequently reproduce very slowly. Their soaring flight is a magnificent exhibition of mastery of the air.

HALL 20: HABITAT GROUPS OF BIRDS



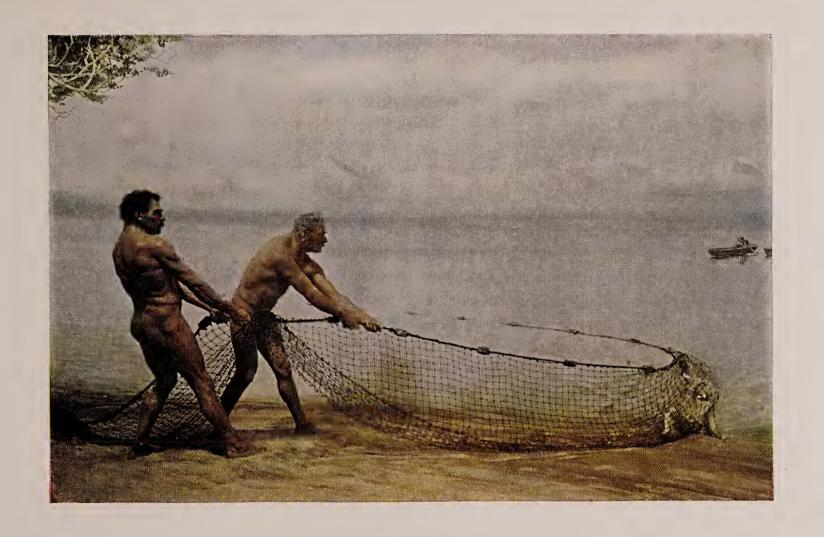
Swiss Lake-Dwellers

N the latter part of the Neolithic period, from about 6,000 to 3,500 years ago, the Lake-Dwellers were widely distributed over Europe.

Their civilization was much superior to any that had previously existed in Europe. They raised many crops, such as wheat, barley, and flax, and herded cattle, goats, and sheep. The flax was spun into thread, which they used for weaving into cloth, and making fish-nets and seines.

These people lived in houses built over the water on pile foundations. Such habitations were easily defended, as they could be attacked only from boats.

HALL C: STONE AGE OF THE OLD WORLD



Bengal Tiger



THE several varieties of tigers probably are only geographic races of a single species. The Bengal Tiger is the variety of India, of good size, rich color, and short, smooth coat.

Tigers prey chiefly upon deer and wild pigs, but may kill animals as large as the buffalo. They also attack domestic animals and not infrequently form the man-eating habit. They are more slinking and stealthy than lions and live more in heavy jungles or deep grasslands.

WILLIAM V. KELLEY HALL (HALL 17)



Marco Polo's Sheep

THIS sheep, named for the Venetian traveler who first reported it, is generally regarded as the finest of all wild sheep. Its long, gracefully sweeping horns are highly prized as trophies of the hunt.

The habitat of these sheep is in the Pamir ranges of western Turkestan, beyond the main Himalayas, where travel is very arduous.

These specimens are good average examples of the species, with horns slightly over fifty inches in length. Horns over seventy inches in length are known but none approaching this size has been taken for many years.

WILLIAM V. KELLEY HALL (HALL 17)



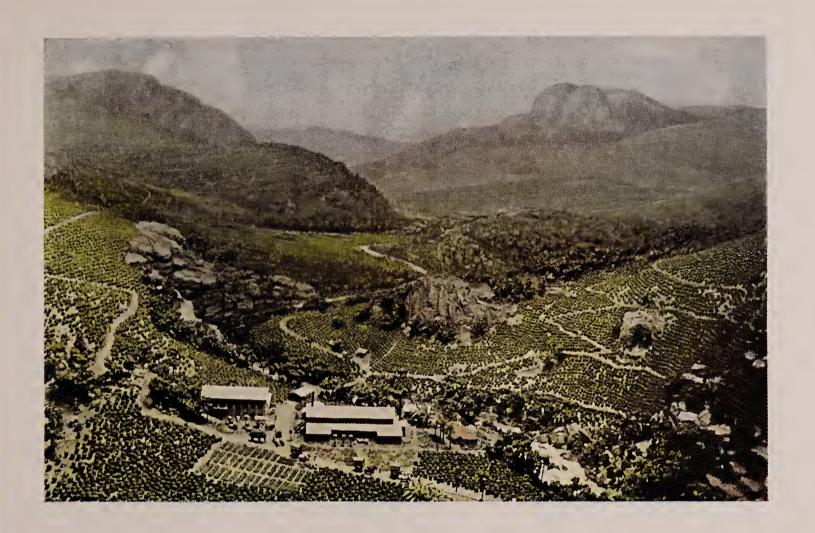
Tea Plantation

A DIORAMA of a tea plantation in Ceylon where elevation, climate, and soil are exceptionally suitable for the cultivation of tea.

In the foreground are the factory and other buildings and in front of these is the nursery for young plants. Seedlings are transplanted and pruned annually to produce bushes of convenient size and shape. The leaves are picked and taken to the factory to be manufactured into tea.

The finished product is packed in chests and transported in ox-carts to the nearest railroad station or navigable river, for export.

HALL 25: FOOD PLANTS

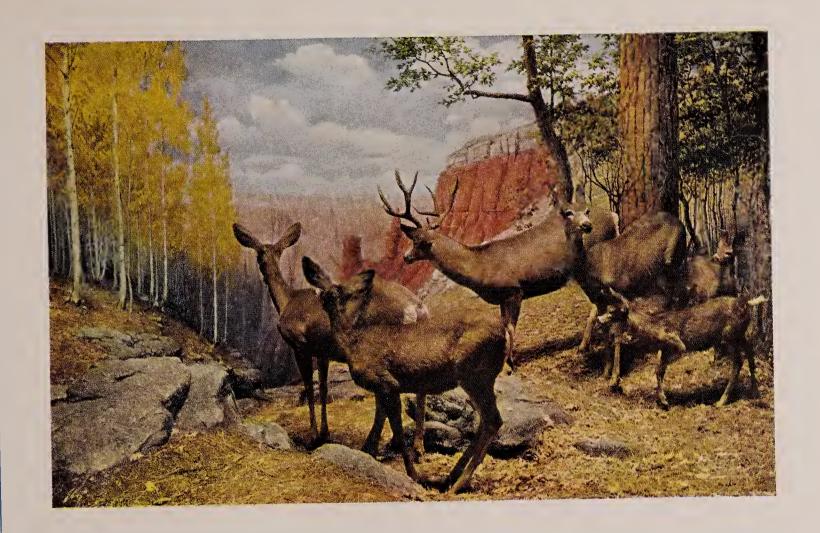


Mule Deer

THIS is the common deer of the Rocky Mountain region from Canada to Mexico. The name Mule Deer is due to its very large ears. It is also marked by its slender, rounded, black-tipped tail. In some localities it is called Black-tail, although this name belongs properly to a Pacific coast species.

The Mule Deer is usually larger than the Virginia Deer of the eastern United States, and its horns branch differently, having two nearly equal, forked divisions on each side. In running, it has a characteristic bounding gait in which all four feet strike the ground at the same time.

RICHARD T. CRANE, JR., HALL (HALL 16)

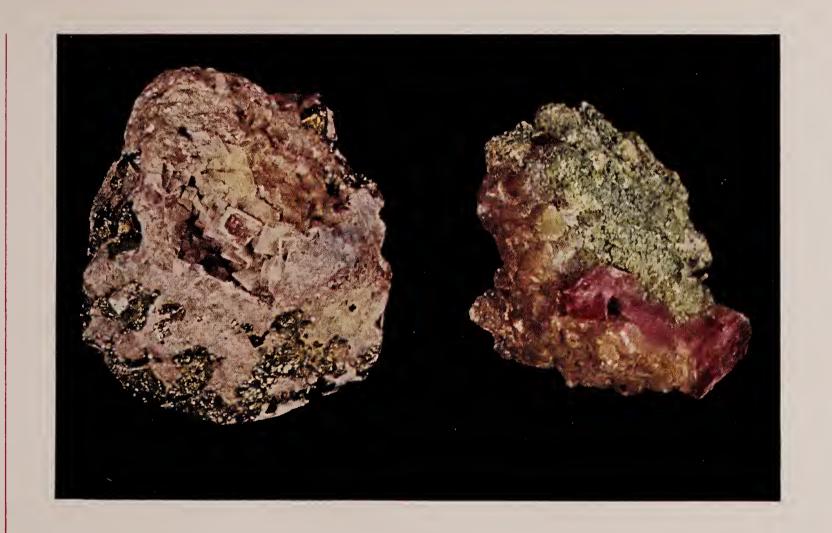


Rhodochrosite Crystals

RHODOCHROSITE is a carbonate of manganese characterized by a beautiful pink color. It is sometimes found in well-formed rhombohedral crystals, such as these. Such beautiful crystals of rhodochrosite would be esteemed as gem stones were it not that they are too soft and brittle for such use.

The golden-yellow crystals associated with the rhodochrosite are pyrite, sometimes called "fool's gold."

HALL 34: MINERALS, CRYSTALS, AND METEORITES





Mongol Woman

THIS long-sleeved ceremonial gown made from Chinese figured silk was once worn by a woman from Urga, in Mongolia. In the model, as in actual life, her heavily greased hair is arranged in two enormous loops ending in long braids. From her cap hang chains of turquois and coral beads and jeweled silver pendants.

This elaborate costume was reserved for special ceremonial occasions; it is unfit for daily use by a Mongol woman, who does all sorts of rough work.

HALL 32: ETHNOLOGY OF CHINA

Egyptian Coffins

22ND DYNASTY

10TH CENTURY B.C.

THE smaller cartonnage coffin, containing the mummy of a lady named Tinto, was enclosed in the larger wooden coffin. Cartonnage consists of successive layers of linen glued together and molded into shape while soft, with an outer coating of fine stucco, which furnished a hard, smooth surface for the colors used in the design.

Symbolic designs cover the smaller coffin. The band on the wooden coffin is inscribed with a prayer.

HALL J: ARCHAEOLOGY OF EGYPT



White Stork

THE European White Stork is known to all civilized peoples through song, folk lore, and legend. In summer, storks are found over most of Europe and central Asia, but they migrate to Africa and India for the winter.

They seek association with man, and in central Europe have acquired the habit of building their bulky nests on the tops of houses. Storks are strictly monogamous and return to the same nest year after year. They frequent marshes where they feed on young birds, small mammals, reptiles, and insects.

In many places they are regarded as omens of good luck, and often are protected for their value as scavengers.

HALL 20: HABITAT GROUPS OF BIRDS

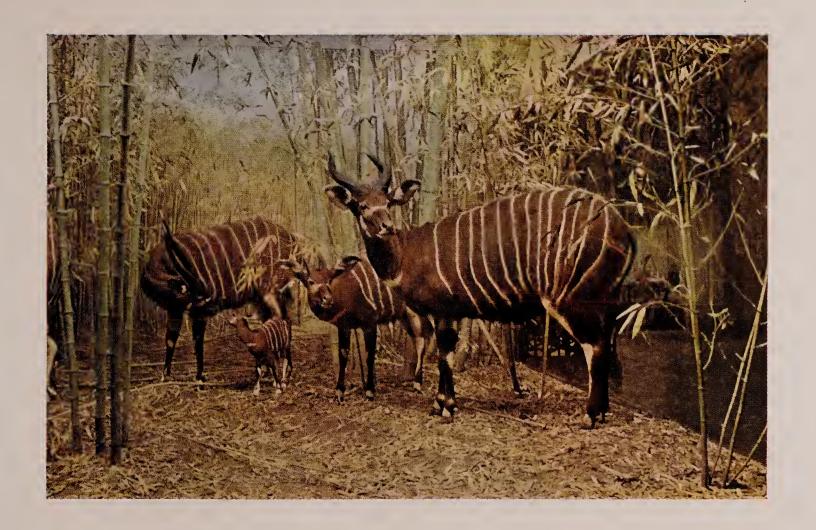


Bongo

THE brilliantly colored Bongo is one of the few African antelopes which shun the open plains and live entirely in deep forests and heavy thickets of bamboo. In spite of its striking coloration, it is difficult to see, for the broken pattern, like that of the tiger, has a concealing effect.

Few animals are more difficult to hunt than the Bongo. It frequents such dense forest and undergrowth that following it quickly or quietly is nearly impossible. Natives capture it in deadfalls and concealed pits along its trails, but white men rarely see it.

CARL E. AKELEY MEMORIAL HALL (HALL 22)



Chinese Censer

THIS elaborately carved ornamental censer, dating from the eighteenth century, was cut from the so-called "gem jade" quarried in Burma. The original block of stone was unusually large for jade of this quality, for the censer itself measures six inches across the handles and is more than six inches high.

Jade is an exceedingly hard and tough stone. As Chinese lapidaries use only simple tools and abrasives, probably from one to three years were required to carve and polish this piece. The labor was repaid by the beauty of the jade, parts of which display that intense emerald green color generally reserved for jewelry.

HALL 30: CHINESE JADE



Sumerian Beads

EARLY DYNASTIC PERIOD

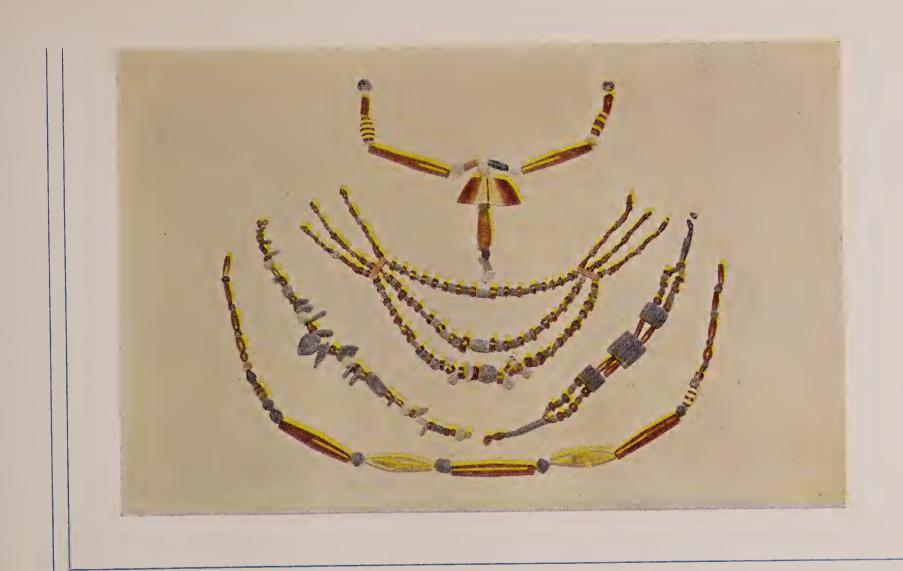
27TH CENTURY B.C.

BEADS of lapis lazuli, carnelian, agate, shell, and gold. These beads, gifts to the dead, were found in a cemetery at the city of Kish in ancient Babylonia.

Stone of all kinds was scarce in the alluvial plains of Babylonia, and gem stones were brought from considerable distances. The white-banded carnelian beads in the upper and lower strings were probably imported from the Indus Valley.

Certain colored stones were believed to have therapeutic value and were worn as a protection against demons and to cure bodily ailments.

HALL K: ARCHAEOLOGY OF BABYLONIA



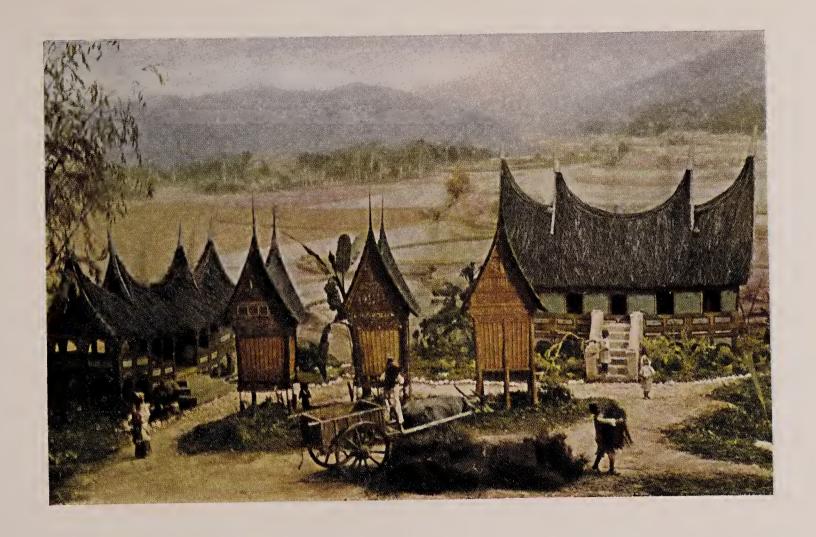
Menangkabau Village

THE Menangkabau form a group of Malays living in the highlands of central Sumatra, the region generally regarded as the ancestral home of all true Malays.

In this model, at the right is a dwelling house and at the left, a council house for the clan; in the center are three rice granaries, while in the background rice fields extend to the distant mountains. In the foreground a caraboa cart has brought bundles of rice straw to be used as thatch for a new house.

The sides and ends of the houses are of wood and are ornamented with elaborate carving. The peculiar construction of the roof is characteristic of these people.

HALL G: ETHNOLOGY OF MALAYSIA



Prongbuck

THE Prongbuck, although often called "American Antelope," is not a true antelope. It was once abundant on open plains from Saskatchewan, Canada, to central Mexico, but it is now rare, and stringent laws and government reservations are all that save it from extermination.

The Prongbuck sheds its horns annually; the horns are hollow, like those of the oxen and Old World antelopes. It is a fleet animal, running at great speed for short distances in a graceful gallop.

RICHARD T. CRANE, JR., HALL (HALL 16)



Klipspringer

THE Klipspringer is the "chamois of Africa," so-called because of its habits, although it is a true antelope not closely related to the Alpine chamois. It frequents rocks and cliffs from Cape Colony northward to Ethiopia. Surefooted and agile, it finds no terrain too formidable.

It is well adapted to its life in rocky places, at either high or low altitudes, by its narrow, cylindrical, and cup-shaped hoofs, which support its weight on their tips. Its very heavy coat is composed of coarse, bristly, pithy hairs that are a protection in case of a fall among the rocks.

CARL E. AKELEY MEMORIAL HALL (HALL 22)

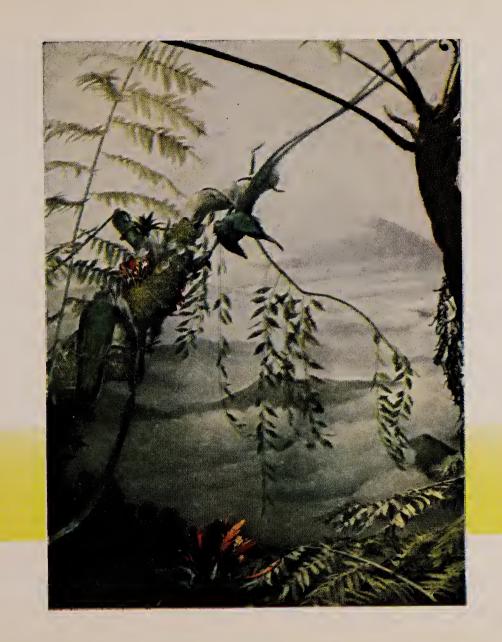


Quetzal

THE Quetzal is the national bird of Guatemala and is considered one of the most beautiful of all birds. It was regarded as sacred by the natives before the arrival of white settlers and only the priests were permitted to adorn themselves with its filmy plumes. Its flight is rapid and graceful, the long, streaming tail never seeming to get in its way.

For decades quetzals were killed in untold numbers for their plumes. They are now protected by law and efforts are being made to prevent their exportation. Quetzals inhabit only the dense mountain forests of southern Mexico and Central America.

HALL 20: HABITAT GROUPS OF BIRDS

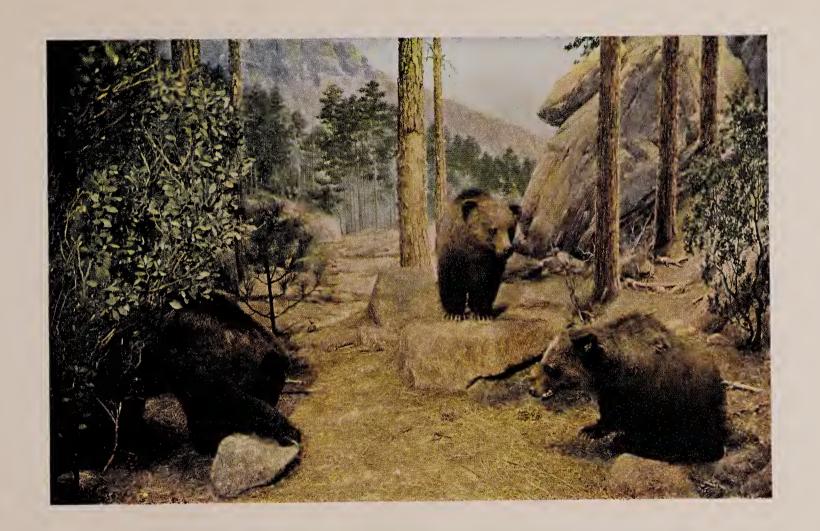


Grizzly Bear

VARIETIES of the Grizzly Bear formerly common in the western United States are now practically extinct. A few remain in Yellowstone National Park and other protected areas. The Sonora Grizzly, shown here, is one of the smaller varieties still found in northern Mexico.

It is practically omnivorous, eating almost anything in the way of animal food, and while it may kill cattle and other live stock, it eats quantities of berries, grub-worms, ants, and other insects. The bear at the left in the group is in the act of lifting a stone in search of grubs.

RICHARD T. CRANE, JR., HALL (HALL 16)



Malachite

MALACHITE is a green, basic carbonate of copper. It is a common ore, found wherever copper is mined. Pieces like the one pictured, of firm, compact texture with a pattern of curving concentric bands, are esteemed for ornamental uses, but such pieces are rare.

For ornamental use, the malachite is sawn in thin strips which are used as veneer on a stone or metal base. The strips are cut and joined so skilfully that the patchwork in the veneer cannot be perceived.

HALL 34: MINERALS, CRYSTALS, AND METEORITES

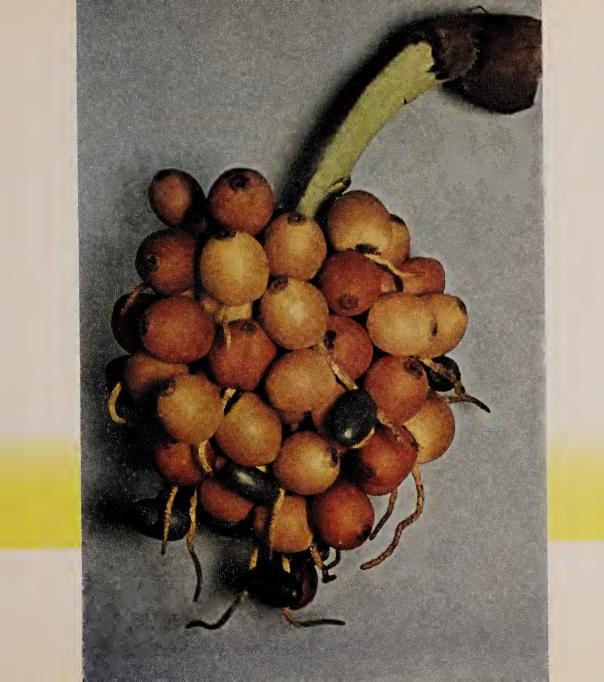


Peach Palm Fruit

THE tall, spiny Peach Palm is a native of tropical America, where it is planted from Costa Rica to Brazil. It is known in different places by various names.

The handsome, reddish-yellow fruit of the Peach Palm is berry-like and predominantly starchy. In the Amazon region as well as in the Andean countries it is an important article of food of the Indians. When boiled or roasted, the pulp has an agreeable, chestnut-like flavor.

MARTIN A. AND CARRIE RYERSON HALL (HALL 29)

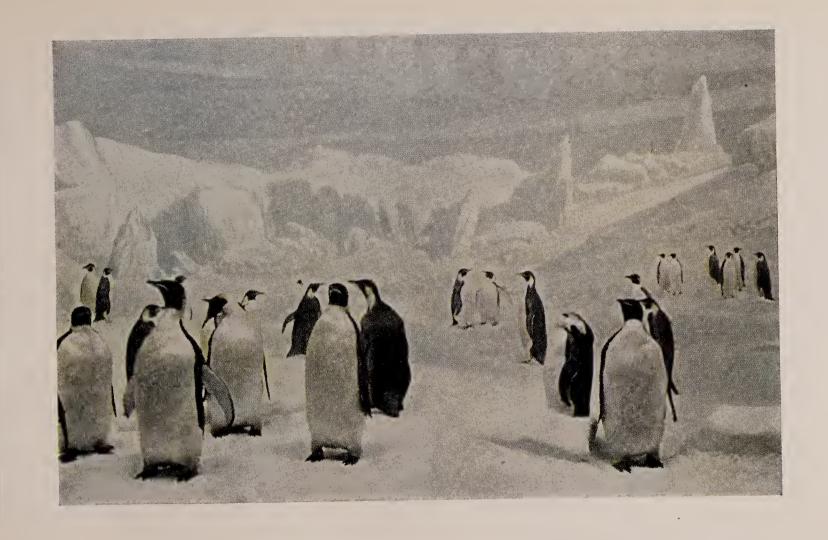


Emperor Penguin

EMPEROR PENGUINS live nearer the South Pole than any other of the higher animals. They breed on floe ice during the dark antarctic winter and lay a single egg that is held on the feet with a fold of skin lowered over it. Penguins are flightless, but are entirely at home in water. Their food consists chiefly of fish.

The high intelligence popularly attributed to penguins is due to their upright posture, sociability, and other superficial resemblances to humans. Actually, penguins are on the same level as other birds in so far as mental capacity is concerned.

HALL 20: HABITAT GROUPS OF BIRDS



Calico Rock

THIS sandstone probably derives its name from calico, a cheap cotton cloth printed with a figured pattern.

Originally, the rock was uniformly red or brown—a coloring due to iron oxides more or less hydrated. The original color was bleached when the iron was dissolved in surface waters containing carbonic acid and products of vegetable decay.

The dissolved iron oxide was then reprecipitated, producing the alternating bands of strong and weak colors of red, brown and buff.

CLARENCE BUCKINGHAM HALL (HALL 35)

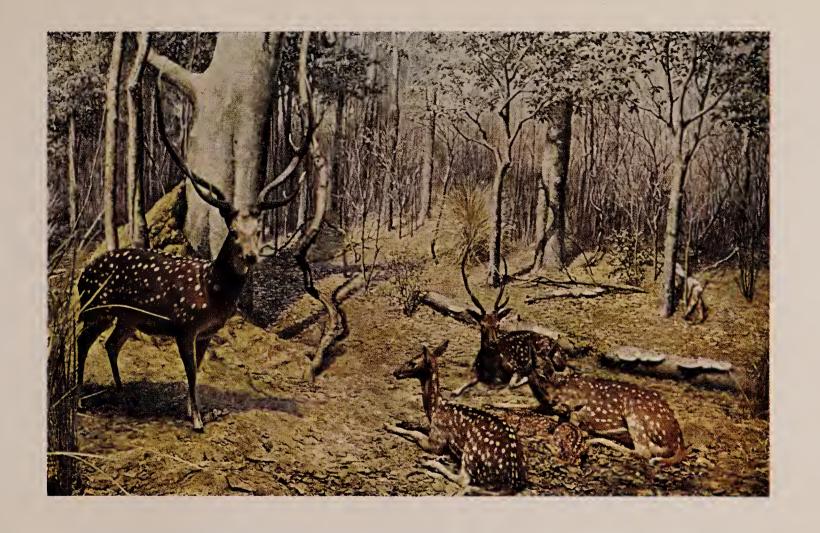


Axis Deer

THIS is one of the most beautiful of the deer family. It is confined to India, where it is found both in the hills and on the plains. The spotted coloration is not, as in so many deer, a character of the immature animal, but is retained at all seasons and ages.

The Axis Deer is frequently kept in zoological gardens and private parks. Males may reach a weight of nearly two hundred pounds, and horns as much as thirty-nine inches in length have been recorded. In the large male shown, the horns are thirty-four inches long.

WILLIAM V. KELLEY HALL (HALL 17)



Oriental Caravan

A MURAL illustrating one of the early highways of commerce. During several thousand years before the discovery of the searoutes to India, the products of the East found their way to the Western world by over-land routes. Over the old highways of transcontinental trade the spices and aromatics of southeastern Asia, of India and Ceylon, arrived in Babylonia, in Palestine and Syria, in Damascus, Tyre, and Sidon, at the courts of the Caliphs and Byzantine emperors.

Spices, frankincense and myrrh, benzoin, camphor, and sandal-wood traveled in bales on the backs of camels from the fertile lands of the far East to the Black Sea and Mediterranean shores.

HALL 25: FOOD PLANTS



French Merchants in Arabia

ONE of a series of murals illustrating the story of food plants. This painting depicts a historic event of the eighteenth century—the visit of French merchants of St. Malo to Yemen, the chief coffee district of Arabia.

This journey, made by way of the Cape of Good Hope, was an event of great importance in the history of the coffee trade. It was of even greater importance as marking the beginnings of the world-wide water-borne commerce of western Europe. Previous to that time the trade in products of the near East, as well as of the Orient, had passed through Mediterranean ports, with Italian cities as principal distributing points.

HALL 25: FOOD PLANTS



Snow Leopard

THE Snow Leopard or Ounce, which lives at very high altitudes in the Himalaya Mountains, is one of the least known of the larger cats of the world. Its light color and soft, thick fur combined with its graceful form and long, fully furred tail make it a very beautiful animal.

The prey of the Snow Leopard includes the wild goats and sheep of the Himalayas, and various birds, especially the beautiful pheasants which abound at high altitudes. It rarely descends below 9,000 feet except in winter, and then it may take a few domestic animals. It is said never to attack man.

WILLIAM V. KELLEY HALL (HALL 17)



Copper Ore

THIS is a cut and polished nodule composed of two basic carbonates of copper: malachite, which is green, and azurite, which is blue.

Both minerals are combinations of oxide of copper, carbonic acid, and water, but the malachite contains more copper and carbonic acid than the azurite.

HALL 34: MINERALS, CRYSTALS, AND METEORITES



Mexican Market Scene

ONE of a series of murals that depict the gathering, production, and distribution of vegetable food in various parts of the world.

The painting reproduced here shows an open-air market in a town of southern Mexico. Similar out-door market scenes, differing in local particulars, may be observed almost anywhere in the American tropics. Most of the products displayed, such as squashes, papayas, and tomatoes, are typically American; others, such as citrus fruit and watermelon, belong to that large group of cultivated plants of Old World origin that are now grown almost everywhere.

HALL 25: FOOD PLANTS



Wild Turkey

TURKEYS are essentially birds of the wilderness and seldom leave the security of the woods. Formerly they were very abundant and in the days of the Pilgrims the Thanksgiving turkey was easily obtained in the surrounding woodlands. With the removal of the forests this bird began to disappear and today wild turkeys are relatively rare.

In the northern and eastern states they now inhabit only the wooded mountains and swamps. In the southern states they are more widely distributed.

HALL 20: HABITAT GROUPS OF BIRDS



African Water-Hole

SCARCITY of water in some parts of Africa causes many animals to congregate at drinking places called "water-holes." At some of these they gather daily all the year, and at others only during certain seasons. Such places often provide water mainly by slow seepage, so each animal has to wait his turn or sometimes even to struggle for his chance to drink.

In this group are twenty-three animals of six different species gathered at a "water-hole." The giraffes are the richly colored species known as the Reticulated Giraffe. The largest is about sixteen feet tall. The rhino is the common Black Rhinoceros.

CARL E. AKELEY MEMORIAL HALL (HALL 22)







